



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200

DALLAS TEXAS 75202-2733

May 04, 2012

MEMORANDUM

SUBJECT: Task Order Monitor Technical Evaluation
Work Plan and Cost Estimate (Revision 01; dated April 24, 2012)
EA Engineering Science and Technology, Inc. (EA)
Falcon Refinery Superfund Site; Ingleside, San Patricio County, Texas
EPA Region 6 Remedial Action Contract 2, Contract: EP-W-06-004

FROM: Rafael Casanova (Remedial Project Manager)
Superfund Division (6SF-RA)

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THRU: Rena McClurg, Project Officer
Superfund Division (6SF-VC)

TO: Michael Pheeny, Contracting Officer
Management Division (6MD-CP)

The U.S. Environmental Protection Agency (EPA) has completed the review of EA's Work Plan (WP) and Cost Estimate (Revision 01) for the Falcon Refinery Superfund Site (hereinafter "the Site") and is recommending approval. EA's WP and cost estimate are acceptable for the work outlined in the EPA's Remedial Investigation and Feasibility Study (RI/FS) Statement of Work (SOW) and is the maximum amount of work needed to perform the RI/FS for the Site. The EPA's approval is based on the following supporting information and rationale included in this technical evaluation. The EPA's cost estimate from the Independent Government Cost Estimate (IGCE) was \$642,621. EA's cost estimate was \$1,236,965, which is \$465,820 greater than the +20% range of \$771,145 from the IGCE. Attachment A (Table 1 – Comparison, EPA's Cost Estimate and EA's Work Plan Cost Estimate) compares the EPA's cost estimates from the IGCE and EA's WP estimate to complete the RI/FS.

It is estimated that \$934,667 in total funding will be required for the completion of this Task Order (TO) if the Houston Contract Laboratory Program (CLP) performs the majority of the analytical work needed for this RI/FS. The EPA will request that the Houston CLP perform the majority of the analytical work required for this TO, which will significantly reduce the costs associated with Tasks 4 (Sample Analysis) and 5 (Analytical Support and Data Validation). Additionally, the EPA intends to utilize internal community relations resources and staff for the majority of the work required for Task 2 (Community Involvement), which would also significantly reduce the costs associated with Task 2 and further decrease the funding required for this TO.

Supporting Information and Rationale for Acceptance of EA's Work Plan

Task 1 – Project Planning and Support

The EPA's RI/FS IGCE estimated \$79,231 for the work required for Task 1. EA's cost estimate was \$141,650 for the work included in the EPA's RI/FS SOW; which is \$46,573 higher than the +20% range of \$95,077 from the IGCE. The EPA believes that the IGCE underestimated the amount of work needed for EA's preparation of the RI/FS Work Plan, Field Sampling Plan, and Quality Assurance Project Plan. The preparation of these deliverables will require an extensive and thorough review (*i.e.*, review for usability in the RI/FS and risk assessments) of the background technical documentation developed by National Oil Recovery Corporation (NORCO), the potentially responsible party for the Site, and the EPA. The EPA is recommending approval of the additional costs included in EA's cost estimate for Task 1 since the labor distribution and technical approach submitted with the WP are acceptable and reasonable for the effort described in the EPA's RI/FS SOW.

Task 2 – Community Relations

The EPA's RI/FS IGCE estimated \$33,488 for the work required for Task 2. EA's cost estimate was \$33,917 for the work included in the EPA's RI/FS SOW; which is \$6,269 less than the +20% range of \$40,186 from the IGCE. The EPA is recommending approval of the total costs included in EA's cost estimate for Task 2 since the labor distribution and technical approach submitted with the WP are acceptable and reasonable for the effort described in the EPA's RI/FS SOW. The EPA intends to utilize internal community relations resources and staff for the majority of the work required for Task 2, which would significantly reduce the costs associated with Task 2 and further decrease the total funding required for this TO.

Task 3 – Field Investigation/Data Acquisition

The EPA's RI/FS IGCE estimated \$137,123 for the work required for Task 3. EA's cost estimate was \$372,875 for the work included in the EPA's RI/FS SOW; which is \$208,327 higher than the +20% range of \$164,548 from the IGCE. The EPA is recommending approval of the total costs included in EA's cost estimate for Task 3 since the labor distribution and technical approach submitted with the WP are acceptable and reasonable for the effort described in the EPA's RI/FS SOW. The EPA believes that EA's cost estimate more accurately reflects the total costs needed to complete Task 3 for the following reasons.

The EPA's IGCE did not include EA's cost estimates associated with disposal of investigation-derived wastes (IDW; \$13,500); determination of IDW (\$9,000); direct-push rig (\$30,000); rental equipment (\$7,901); and permeability, particle size, and suspended solids analyses (\$19,300), totaling \$79,701. Additionally, the EPA's IGCE underestimated the costs associated with sampling supplies. The EPA's costs for sampling supplies totaled \$5,000, while EA's cost estimate for these services totaled \$7,900; a difference of \$2,900 from the EPA's IGCE. Adding \$79,701 in additional costs not included in the EPA's IGCE and \$2,900 for underestimated costs

to the EPA's total of \$137,123 from the IGCE totals \$219,724. EA's cost estimate of \$372,875 for the work included in the EPA's RI/FS SOW is now \$109,206 higher than the +20% range of \$263,669 from the EPA's IGCE (see Table 1, Footnote A). The EPA believes that EA's estimated costs to implement Task 3 represent the maximum field sampling effort needed to determine the nature and extent of contamination at the Site which is currently unknown. The EPA believes that RI/FS SOW revisions or TO amendments will not be required to conclude the RI/FS field work.

Task 4 – Sample Analysis

The EPA's IGCE estimated \$217,701 for Task 4. EA's cost estimate was \$272,298; which is \$11,057 higher than the +20% range of \$261,241 from the IGCE. The EPA is recommending approval of the total costs included in EA's cost estimate for Task 4 since the sampling costs submitted with the WP are acceptable and reasonable for the effort described in the EPA's RI/FS SOW. The EPA will request that the Houston CLP perform the majority of the analytical work required for this TO, which will significantly reduce the costs associated with Task 4. Additionally, EA's cost estimate assumed that all analytical sampling would be subcontracted to a non-CLP laboratory.

Task 5 – Analytical Support and Data Validation

The EPA's IGCE estimated \$0 for Task 5. EA's cost estimate was \$50,254. The EPA believes that the IGCE underestimated the total costs for Task 5. EA's cost estimate for Task 5 included the performance of data validation for the analytical data derived from all samples collected during the RI/FS, which was not included in the EPA's IGCE since the majority of the samples will be analyzed by the Houston CLP and in which case full data validation would be performed by these laboratories and not charged to the Site TO. The EPA is recommending approval of the total costs included in EA's cost estimate for Task 5 since the labor distribution and technical approach submitted with the WP are acceptable and reasonable for the effort described in the EPA's RI/FS SOW and since EA will be required to perform the necessary data validation for the analytical data derived from a non-CLP laboratory.

Task 6 – Data Evaluation

The EPA's IGCE estimated \$11,073 for Task 6. EA's cost estimate was \$60,023; which is \$46,735 higher than the +20% range of \$13,288 from the IGCE. The EPA believes that the IGCE underestimated the total costs for Task 6. The EPA's cost estimate for Task 6 only included the preparation of the Draft and Final Data Evaluation Summary Report. EA's cost estimate included the additional costs associated with the compilation of the analytical and field data into a format acceptable to the EPA, the evaluation of the usability of the field and laboratory data, data reduction and tabulation, trend evaluation of the data, and environmental fate and transport modeling, which were not included in the EPA's IGCE. Additionally, the EPA's IGCE underestimated the work required for the preparation of the Data Evaluation Summary Report. This report may be more extensive than previously estimated due to the amount of background analytical data collected by NORCO that must be reevaluated by EA for its usability for the RI/FS and risk assessments, including the additional data collected by EA

which will also need to be analyzed, interpreted, and incorporated into the Data Evaluation Summary Report. The EPA is recommending approval of the total costs included in EA's cost estimate for Task 6 since the labor distribution and technical approach submitted with the WP are acceptable and reasonable for the effort described in the EPA's RI/FS SOW.

Task 7 – Risk Assessment

The EPA's IGCE estimated \$82,087 for Task 7. EA's cost estimate was \$85,306; which is \$13,198 less than the +20% range of \$98,504 from the IGCE. The EPA is recommending approval of the total costs included in EA's cost estimate for Task 7 since the labor distribution and technical approach submitted with the WP are acceptable and reasonable for the effort described in the EPA's RI/FS SOW.

Task 8 – Treatability Study/Pilot Testing

Task 8 is "inactive."

Task 9 – Remedial Investigation Report

The EPA's IGCE estimated \$49,635 for Task 9. EA's cost estimate was \$89,434; which is \$29,872 greater than the +20% range of \$59,562 from the IGCE. The EPA believes that the IGCE underestimated the total costs for Task 9 since the RI Report may be more extensive than previously estimated. The RI Report will include an extensive history associated with the Site and will incorporate the extensive historical analytical data collected by NORCO from all media into the report, including the additional analytical data collected by EA. The EPA is recommending approval of the total costs included in EA's cost estimate for Task 9 since the labor distribution and technical approach submitted with the WP are acceptable and reasonable for the effort described in the EPA's RI/FS SOW.

Task 10 – Remedial Alternatives Screening

The EPA's IGCE estimated \$0 for Task 10 since this task was incorporated into Task 12 (Feasibility Study Report). EA's cost estimate was \$21,778 for Task 10. The EPA is recommending approval of the total costs included in EA's cost estimate for Task 10 since the labor distribution and technical approach submitted with the WP are acceptable and reasonable for the effort described in the EPA's RI/FS SOW and for the reasons discussed under Task 12.

Task 11 – Remedial Alternatives Evaluation

The EPA's IGCE estimated \$0 for Task 11 since this task was incorporated into Task 12 (Feasibility Study Report). EA's cost estimate was \$52,495 for Task 11. The EPA is recommending approval of the total costs included in EA's cost estimate for Task 11 since the labor distribution and technical approach submitted with the WP are acceptable and reasonable for the effort described in the EPA's RI/FS SOW and for the reasons discussed under Task 12.

Task 12 – Feasibility Study Report

The EPA's IGCE estimated \$20,525 for Task 12, which also included costs associated with Tasks 10 (Remedial Alternatives Screening) and 11 (Remedial Alternatives Evaluation). EA's cost estimate was \$37,769 for Task 12, which is \$13,139 higher than the +20% range of \$24,630 from the IGCE. Adding EA's cost estimates of \$21,778 for Task 10 (Remedial Alternatives Screening) and \$52,495 for Task 11 (Remedial Alternatives Evaluation) to EA's cost estimate of \$37,769 for Task 12 totals \$112,042; which is \$87,412 higher than the +20% high range of \$24,630 from the IGCE (see Table 1, Footnote B). The EPA believes that the IGCE underestimated the costs of Task 12 and is recommending approval of the total costs included in EA's cost estimates for Tasks 10, 11, and 12 since the labor distribution and technical approach submitted with the WP are acceptable and reasonable for the effort described in the EPA's RI/FS SOW. The EPA is also recommending approval of EA's cost estimates since the principal contaminants of concern (COCs) are unknown at this time and these COCs will determine the extent of remedial alternatives screening and evaluation, under Tasks 10 and 11, and the amount of work needed for the completion of the Feasibility Study Report under Task 12.

Task 13 – Post RI/FS Support

The EPA's RI/FS IGCE estimated \$4,594 for Task 13. EA's cost estimate was \$13,435 for the work included in the EPA's RI/FS SOW, which is \$7,922 greater than the +20% range of \$5,513 from the IGCE. The EPA is recommending approval of the total costs included in EA's cost estimate for Task 13 since the labor distribution and technical approach submitted with the WP are acceptable and reasonable for the effort described in the EPA's RI/FS SOW, and since there is a possibility that EA would need to prepare additional technical memorandums or other documentation needed to support the EPA's development of the Proposed Plan and Record of Decision.

Task 14 – Administrative Record

Task 14 is "inactive."

Task 15 – Task Order Closeout

The EPA's IGCE estimated \$7,164 for work required for Task 15. EA's cost estimate was \$5,733, which is \$2 greater than the -20% range of \$5,731 from the IGCE. The EPA is recommending approval of the total costs included in EA's cost estimate for Task 15 since the labor distribution and technical approach submitted with the WP are acceptable and reasonable for the effort described in the EPA's RI/FS SOW.

ATTACHMENT A

TABLE 1
COMPARISON
EPA'S COST ESTIMATE AND EA'S WORK PLAN COST ESTIMATE

Task	EPA's Cost Estimate from IGCE	EA's Work Plan Cost Estimate	Greater/Less than $\pm 20\%$ Range of the EPA's IGCE
Task 1	\$79,231	\$141,650	\$46,573 > +20% Range of \$95,077
Task 2	\$33,488	\$33,917	\$6,269 < +20% Range of \$40,186
Task 3	\$137,123	\$372,875	\$208,327 > +20% Range of \$164,548
Task 3 ^A	\$219,724	\$372,875	\$109,206 > +20% Range of \$263,669
Task 4	\$217,701	\$272,298	\$11,057 > +20% Range of \$261,241
Task 5	\$0	\$50,254	Not Applicable
Task 6	\$11,073	\$60,023	\$46,735 > +20% Range of \$13,288
Task 7	\$82,087	\$85,306	\$13,198 < +20% Range of \$98,504
Task 8 (Inactive)	\$0	\$0	Not Applicable
Task 9	\$49,635	\$89,434	\$29,872 > +20% Range of \$59,562
Task 10	\$0	\$21,778	Not Applicable
Task 11	\$0	\$52,495	Not Applicable
Task 12	\$20,525	\$37,769	\$13,139 > +20% Range of \$24,630
Task 12 ^B	\$20,525	\$112,042	\$87,412 > +20% Range of \$24,630
Task 13	\$4,594	\$13,435	\$7,922 > +20% Range of \$5,513
Task 14 (Inactive)	\$0	\$0	Not Applicable
Task 15	\$7,164	\$5,733	\$2 > -20% Range of \$5,731
TOTAL	\$642,621^C	\$1,236,965^C	\$465,820 > 20% Range of \$771,145^C

Footnotes:

^A Adding \$79,701 in additional costs not included in the EPA's IGCE and \$2,900 for underestimated costs to the EPA's total of \$137,123 from the IGCE totals \$219,724. EA's cost estimate of \$372,875 for the work included in the EPA's RI/FS SOW is now \$109,206 higher than the +20% range of \$263,669 from the EPA's IGCE.

^B Adding EA's cost estimates of \$21,778 for Task 10 (Remedial Alternatives Screening) and \$52,432 for Task 11 (Remedial Alternatives Evaluation) to EA's cost estimate of \$37,769 for Task 12 totals \$112,042; which is \$87,412 greater than the +20% range of \$24,630 from the IGCE.

^C These total costs do not include the costs discussed in Footnotes A and B for Tasks 3 and 12, respectively.